

REMARKS

Prior to the present Amendment, claims 1-18 were all the claims pending in the application. Claim 10 has been withdrawn from consideration by the Examiner pursuant to the Response to Restriction Requirement filed March 24, 2008. The Examiner has objected to claims 1, 2, 6, and 11, as well as Figures 1, 4, and 6. Claims 1-9 stand rejected under 35 U.S.C. § 112, as well as on new prior art grounds. By this Amendment, claim 18 has been canceled without prejudice or disclaimer. Thus, upon entry of the present Amendment, claims 1-17 will be all the claims pending in the application.

I. Objection to the Drawings

The drawings received on August 3, 2009 have been objected to for the following reasons:

- In Figures 4 and 6, the lead line of reference character 16a should rather point to the distal segment of the opening 16 instead of the opening of the elastomer damper E.
- In Figure 1, the dashed circle should be identified to as corresponding to Fig. 2, not as “A.”
- In Figures 4 and 6, the right side portion and the left side portion of the wall 2 and the flange 14 should be shown with a wavy line to indicate continuity.
- In Figures 4 and 6, reference character “6” must be deleted or relocated to maintain consistency with Figure 1.

Applicant is submitting herewith three sheets of replacement drawings, which are believed to overcome the objections. No new matter is added.

II. Objections to the Claims

Claims 1, 2, 6, and 11 have been objected to because of the following informalities:

- regarding claim 1, “their” in line 8 should be defined;
- regarding claim 2, “hole” in line 2 and twice in line 3, line 6, and line 7 should be “holes”;
- regarding claim 6, “hole” in line 3 should be “holes”; and
- regarding claim 11, the second occurrence of “a” in line 9 should be “the” and “bends” in line 12 should be “is bendable.”

Applicant has amended claims 1, 2, 6, and 11 in a manner believed to overcome the claim objections.

III. Claim Rejection - 35 U.S.C. § 112, First Paragraph

Claims 11-18 stand rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner maintains that in claim 11, the recitation “bends without breaking” in line 12 is not supported in the disclosure. Applicant’s representative discussed this rejection with the Examiner and pointed out that support for the above recitation can be found at least at page 3, lines 29-30 and page 4, lines 22-23 of the original specification. The Examiner indicated that these portions of the specification provide written description support for “bends without breaking” in compliance with 35 U.S.C. § 112, first paragraph.

Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claim 11, and dependent claims 12-18, under 35 U.S.C. § 112, first paragraph.

IV. Claim Rejection - 35 U.S.C. § 112, Second Paragraph

Claims 11-18 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly being incomplete for omitting essential structural cooperative relationships between the screw, the annular flange, and the stationary structure to render a “fastener system.” The Examiner indicated to Applicant’s representative that deleting the word “when” from line 9 of claim 11 would overcome the rejection. Accordingly, Applicant has amended claim 11, as suggested by the Examiner, in a manner believed to overcome the rejection.

Claims 1-9 and 18 stand rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

Regarding claim 1, the Examiner maintains that “the same axis” lacks antecedent basis. Applicant has amended claim 1 to correct antecedent basis.

Regarding claim 2, the Examiner maintains that the metes and bounds of the claim are unclear because the tapped holes and the stationary structure are not claimed, and thus the maximum lateral offset cannot be claimed relative to the tapped holes. Applicant has amended claim 2 in a manner believed to overcome the rejection.

Regarding claim 11, the Examiner maintains that the recitation “the proximal segment has an opening abutting the hole in the stationary structure” in lines 14-15 is unclear as to how one determines the opening of the proximal segment abutting the hole specially when the hole in the stationary structure is of a different size than the portion of the hole in the stationary structure. The Examiner indicated to Applicant’s representative that a hole cannot “abut” another hole. However, the Examiner agreed that an opening of the proximal segment can be

directly adjacent to a portion of the hole in the stationary structure. Accordingly, Applicant has amended claim 11, as discussed with the Examiner, in a manner believed to overcome the rejection.

Regarding claim 12, the Examiner maintains that it is unclear whether “an opening” in line 2 is a different opening than that recited in claim 11, line 14. Applicant has amended claim 12 in a manner believed to overcome the rejection.

Regarding claim 13, the Examiner maintains that the metes and bounds of the claim are unclear because the claim has not set forth that the screw is actually inserted in the through hole. The present amendment to claim 11 specifies that the screw is inserted into the through hole. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection of claim 13.

Regarding claim 18, Applicant has canceled claim 18, thus rendering the rejection of claim 18 moot.

V. Claim Rejection Under 35 U.S.C. § 102(b) over U.S. Patent No. 2,560,413 to Carlson (“Carlson”)

Claims 1, 3-6, 9, 11-13, 15, 16, and 18 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Carlson. Applicant respectfully traverses the rejection as follows.

In rejecting claim 1, the Examiner maintains that Carlson teaches most of the features of claim 1, but does not give patentable weight to the feature:

...when fastened to the wall of the stationary structure, in the event of shear forces (20, 21) being applied in any lateral direction in a connection zone between the vacuum pump (1) and the stationary structure (3), the shank (19) of the screw bends and the through hole (16) is offset laterally (D).

The Examiner asserts that this recitation is not a structural feature, but describes what the apparatus does, and is therefore not given patentable weight. The Examiner further asserts that

the screw is not required to bend and the through hole is not required to offset because the claim states that these features only occur “when fastened to the wall of the stationary structure.”

Although Applicant does not necessarily agree with the Examiner, Applicant has amended claim 1 to describe that the structure of the shank and the through holes are configured to bend and offset, respectively, in response shear forces in any lateral direction. Applicant respectfully submits that the present amendment defines the structural configuration of the shank and the through hole, and must be given patentable weight.

The Federal Circuit recently opined on allegedly functional limitations found in apparatus claims in *Gemtron Corp. v. Saint-Gobain Corp.*¹ In *Gemtron*, the claim at issue was directed to a refrigerator shelf, including a frame and a piece of glass. *See Gemtron*, 91 USPQ2d at 1412. The frame included “a relatively resilient end edge portion which temporarily deflects and subsequently rebounds to snap-secure one of said glass piece front and rear edges.” *See id.* The Federal Circuit held that “[w]hile the claim language ties the ‘relatively resilient’ characteristic of the frame’s edge portion to its function in the assembly of the shelf, that characteristic is nonetheless a structural attribute possessed by the claimed frame and is not a process limitation.” *See id.* at 1414 (emphasis added). The Federal Circuit further held that the term “snap-secure” “describes the structural relationship between the glass panel and the frame, which is possessed by the claimed shelf because of the structural characteristics of the individual components.” *Id.* (emphasis added).

The *Gemtron* case is directly applicable to the claims in the present application. In claim 1, the shank is configured to bend and the through hole is configured to offset laterally in

¹ *Gemtron Corp. v. Saint-Gobain Corp.*, 91 USPQ2d 1409 (Fed. Cir. 2009).

response to shear forces. Similarly, in *Gemtron*, the relatively resilient end edge portion temporarily deflects and subsequently rebounds to snap-secure the glass piece during assembly of the claimed shelf. The Federal Circuit ruled that, even though the claim limitation in *Gemtron* described the movement of the claimed edge portion at a particular point in time (*i.e.*, when the glass piece is inserted into the frame during assembly), the claim limitation was a structural attribute. In the present application, the claimed feature that the shank is configured to bend and the through hole is configured to offset laterally in response to shear forces, likewise defines a structural attribute of the shank and through hole, respectively.

Accordingly, Applicant respectfully submits that all of the features of claim 1 must be given patentable weight. Applicant further submits that Carlson fails to teach or suggest “wherein the shank is configured to bend and the through hole is configured to offset laterally in response to shear forces (20, 21) being applied in any lateral direction in a connection zone between the vacuum pump (1) and the stationary structure (3)” for at least the reasons set forth in the Amendment filed on August 3, 2009.

Since claim 11 recites features similar to those discussed above in conjunction with claim 1, Applicant submits that claim 11 is patentable for at least reasons similar to those set forth for claim 1. Since claims 3-6 and 9 depend from claim 1, and claims 12, 13, 15, and 16 depend from claim 11, Applicant submits that claims 3-6, 9, 12, 13, 15, and 16 are patentable at least by virtue of their respective dependencies. Since claim 18 has been canceled without prejudice or disclaimer, Applicant submits that the rejection of claim 18 is now moot.

VI. Claim Rejection Under 35 U.S.C. § 102(b) over U.S. Patent No. 4,127,142 to Snider (“Snider”)

Claims 1, 5, 6, and 18 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by newly cited Snider. Applicant respectfully traverses the rejection as follows.

The Examiner maintains that Snider teaches most of the features of claim 1, but does not contend that Snider teaches that the shank of screw 42 is configured to bend, or that through hole A1 (on Examiner’s marked-up version of Fig. 6 of Snider) is configured to laterally offset. In fact, Snider teaches that instead of the shank of screw 42 bending and through hole A1 offsetting, upon strong horizontal impact, the break away bolt 42 shears allowing the hydrant to break-away from the valve body. *See* Snider at col. 3, lines 19-24; Fig. 6. In other words, Snider teaches the exact opposite of allowing the screw to bend and the through hole to offset.

Accordingly, Applicant submits that claim 1 is patentable over Snider because the cited reference fails to teach or suggest at least the feature “wherein the shank is configured to bend and the through hole is configured to offset laterally in response to shear forces (20, 21) being applied in any lateral direction in a connection zone between the vacuum pump (1) and the stationary structure (3).”

Applicant further submits that claims 5 and 6 are patentable over Snider at least by virtue of their dependency from claim 1. Since claim 18 has been canceled without prejudice or disclaimer, the rejection of claim 18 is now moot.

VII. Claim Rejection Under 35 U.S.C. § 102(b) over U.S. Patent No. 2,083,054 to Cline (“Cline”)

Claims 11, 13, 15, and 16 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Cline. Applicant respectfully traverses the rejection as follows.

Claim 11 recites, *inter alia*:

the proximal segment provides a gap in which the shank is bendable without breaking while maintaining the flange fastened to the stationary structure; and
wherein the proximal segment has an opening directly adjacent to the hole in the stationary structure that is sized differently from a portion of the hole in the stationary structure that is directly adjacent to the opening in the proximal segment.

In the present Office Action, the Examiner now contends that gasket 18 of Cline corresponds to the claimed stationary structure and that enlargement 16 of Cline corresponds to the claimed proximal segment. The Examiner contends that enlargement 16 is tapered and thus has different portions that are sized differently from the hole in gasket 18. However, claim 11 recites that the opening of the proximal segment (*i.e.*, enlargement 16) directly adjacent to the hole in the stationary structure (*i.e.*, gasket 18) is sized differently from the portion of the hole in the stationary structure that is directly adjacent to the opening in the proximal segment. In other words, it is irrelevant that enlargement 16 is tapered and has portions that are different sizes. The only portion of enlargement 16 that is relevant is the portion that is directly adjacent to the opening in gasket 18. As shown in Fig. 1 of Cline (and in the Examiner's marked up version on page 23 of the Office Action) the directly adjacent portions of enlargement 16 and the opening in gasket 18 are the same size. Therefore, Cline fails to teach or suggest at least the feature "wherein the proximal segment has an opening directly adjacent to the hole in the stationary structure that is sized differently from a portion of the hole in the stationary structure that is directly adjacent to the opening in the proximal segment."

In addition, Applicant respectfully submits that Cline fails to teach or suggest that "the shank is bendable without breaking while maintaining the flange fastened to the stationary structure." Rather, Cline teaches that under impact, the bolts will be sheared or pulled apart at

the grooves 22, so that the entire upper structure can fall to the ground without injury to the lower structure. *See* Cline at col. 2, lines 5-12. In other words, Cline operates in an exactly opposite manner to the apparatus in claim 1, by actually intending for the bolts to shear and allowing the structure to come apart.

Accordingly, Applicant submits that claim 11 is patentable over Cline because Cline fails to teach or suggest all of the features of claim 11.

Applicant further submits that claims 13, 15, and 16 are patentable over Cline at least by virtue of their dependency from claim 11.

VIII. Claim Rejection Under 35 U.S.C. § 102(b) over U.S. Patent No. 5,871,319 to Schneider (“Schneider”)

Claims 1-9 and 18 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by newly cited Schneider. Applicant respectfully traverses the rejection as follows.

In rejecting claim 1, the Examiner maintains that bottleneck 16 and undercut 21 of mounting hole 1 in Schneider correspond to the claimed distal segment and proximal segment, respectively. *See* Schneider at Fig. 1. As shown in Fig. 4 of Schneider screw 6 is inserted into mounting hole 1. However, Schneider fails to teach or even suggest that the shaft 36 of screw 6 is configured to bend and mounting hole 1 is configured to offset laterally in response to shear forces being applied in any lateral direction. Schneider merely teaches that assembly sleeve 25 of screw 6 is “retained virtually captive” in the mounting hole 1. *See* Schneider at col. 6, lines 14-15. Schneider is completely silent with respect to shaft 36 being configured to bend or mounting hole 1 being configured to offset laterally.

Accordingly, Applicant respectfully submits that claim 1 is patentable over Schneider because Schneider fails to teach or suggest all of the features of claim 1.

Since claims 2-9 depend from claim 1, Applicant submits that claims 2-9 are patentable at least by virtue of their dependency. Since claim 18 has been canceled without prejudice or disclaimer, the rejection of claim 18 is now moot.

IX. Claim Rejection Under 35 U.S.C. § 102(b) over European Patent Publ. No. 272-642 to Wagner (“Wagner”)

Claims 11-13, 15, and 16 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Wagner. Applicant respectfully traverses the rejection as follows.

In rejecting claim 11, the Examiner maintains that fastener 12 of Wagner corresponds to the claimed screw and that the open flared bottom opening of first workpiece 44 corresponds to the claimed proximal segment. *See* Wagner at Fig. 3. However, Wagner fails to teach or suggest that the shank of fastener 12 “is bendable without breaking while maintaining the flange fastened to the stationary structure.” Wagner merely teaches that fastener 12, along with washer 14 and grommet 16, are preassembled and inserted into first workpiece 44 and is held securely in first workpiece 44 by flared rim 36. *See* Wagner at col. 4, lines 23-36. Wagner is completely silent with respect to whether the shank of fastener 12 is “bendable without breaking while maintaining the flange fastened to the stationary structure.”

Accordingly, Applicant respectfully submits that claim 11 is patentable over Wagner because Wagner fails to teach or suggest all of the features of claim 11.

Applicant further submits that claims 12, 13, 15, and 16 are patentable over Wagner at least by virtue of their dependency from claim 11.

X. Claim Rejection Under 35 U.S.C. § 103(a) over Carlson taken alone

Claims 2, 7, 9, 14, and 17 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Carlson taken alone.

Since claims 2, 7, and 9 depend from claim 1, and claims 14 and 17 depend from claim 11, Applicant submits that claims 2, 7, 9, 14, and 17 are patentable over Carlson at least by virtue of their respective dependencies.

XI. Claim Rejection Under 35 U.S.C. § 103(a) over Carlson in view of U.S. Patent No. 1,831,430 to Weis (“Weis”)

Claim 8 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Carlson in view of Weis.

Since claim 8 depends from claim 1, and Weis fails to cure the deficient teachings of Carlson with respect to claim 1, Applicant submits that claim 8 is patentable over Carlson and Weis at least by virtue of its dependency from claim 1.

XII. Claim Rejection Under 35 U.S.C. § 103(a) over Cline take alone

Claims 14 and 17 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Cline.

Since claims 14 and 17 depend from claim 11, Applicant submits that claims 14 and 17 are patentable at least by virtue of their dependency.

XIII. Claim Rejection Under 35 U.S.C. § 103(a) over Wagner in view of Schneider

Claims 14 and 17 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wagner in view of Schneider.

Since claims 14 and 17 depend from claim 11, and Schneider fails to cure the deficient teachings of Wagner with respect to claim 11, Applicant submits that claims 14 and 17 are patentable over Wagner and Schneider at least by virtue of their dependency.

XIV. Newly Added Claims

The Examiner suggested to Applicant's representative adding new method claims directed to the allegedly functional limitations of claims 1 and 11. Accordingly, Applicant has added new method claims 19 and 20. Since claims 19 and 20 contain features that are similar to the features discussed above in conjunction with claims 1 and 11, Applicant submits that claims 19 and 20 are patentable for similar reasons.

XV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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